FIGURE 1

A

```
mutant siRNA p9          5´-UGGAGACUUGCGCAAUGUGdTdT-3´
                         3´-dTdTACCUCUGAACGCGUUACAC-5´

          p10            5´-GGAGACUUGCGCAAUGUGAdTdT-3´
                         3´-dTdTCCUCUGAACGCGUUACACU-5´

          p11            5´-GAGACUUGCGCAAUGUGACdTdT-3´
                         3´-dTdTCUCUGAACGCGUUACACUG-5´

sod1 wild type 5´-...GAGAGGCAUGUUGGAGACUUGGGCAAUGUGACUGCUGACAAAGAUGGU...-3´
sod1 mutant    5´-...GAGAGGCAUGUUGGAGACUUGCGCAAUGUGACUGCUGACAAAGAUGGU...-3´

wild-type siRNA p11      5´-GAGACUUGGGCAAUGUGACdTdT-3´
                         3´-dTdTCUCUGAACCCGUUACACUG-5´

          p10            5´-GGAGACUUGGGCAAUGUGAdTdT-3´
                         3´-dTdTCCUCUGAACCCGUUACACU-5´

          p9             5´-UGGAGACUUGGGCAAUGUGdTdT-3´
                         3´-dTdTACCUCUGAACCCGUUACAC-5´
```
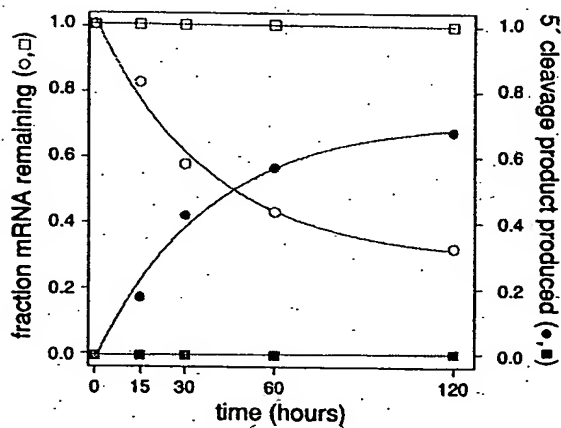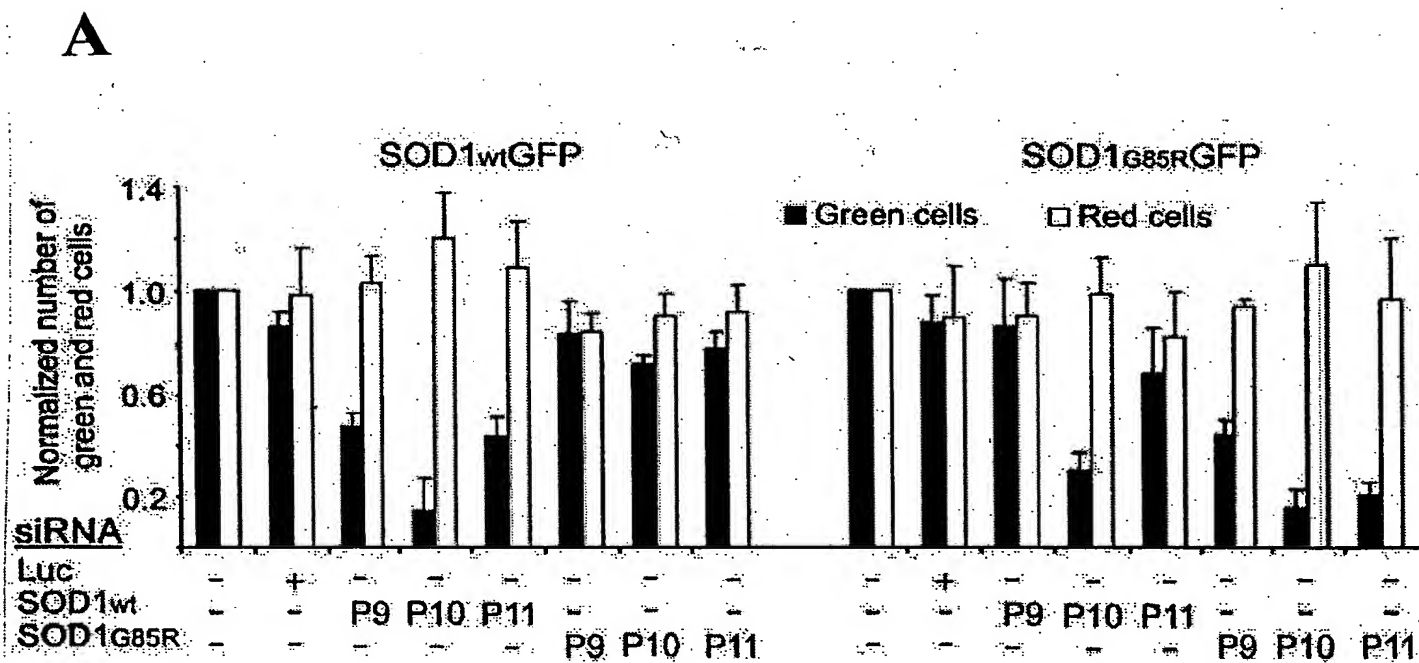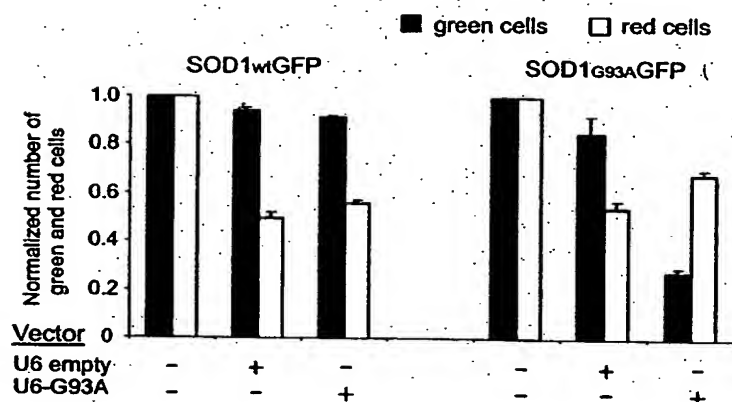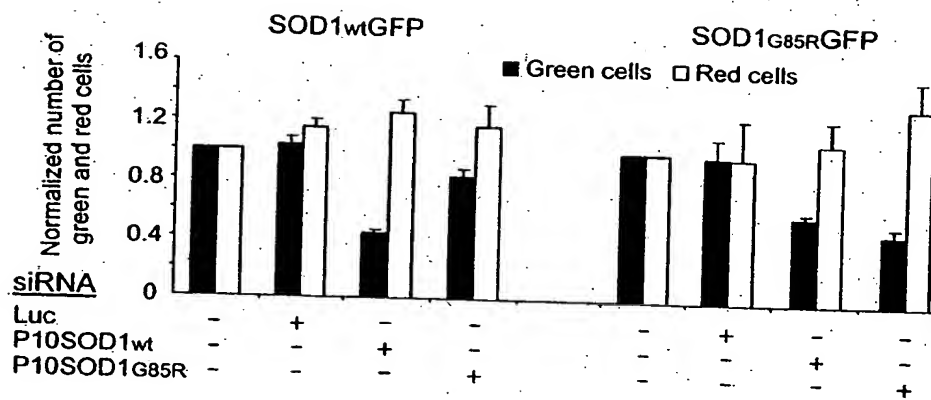
B

App No.: Not Yet Assigned   Docket No.: UMY-038
Inventor: Zuoshang Xu and Phillip D. Zamore
Title: ALLELE-SPECIFIC RNA INTERFERENCE

Sheet 2 of 9

FIGURE 2

A

FIGURE 3

A

Wild type SOD1

5'-...ACTGCTGACAAAGATGGTGTGGCCGATGTGTCTAT...-3'

G93A shRNA   GACAAAGAUGCUGUGGCCGAU^{AA}G
                UUUUCUGUUUCUAC$\underline{G}$ACACCGGCUA$_{UU}$C

B
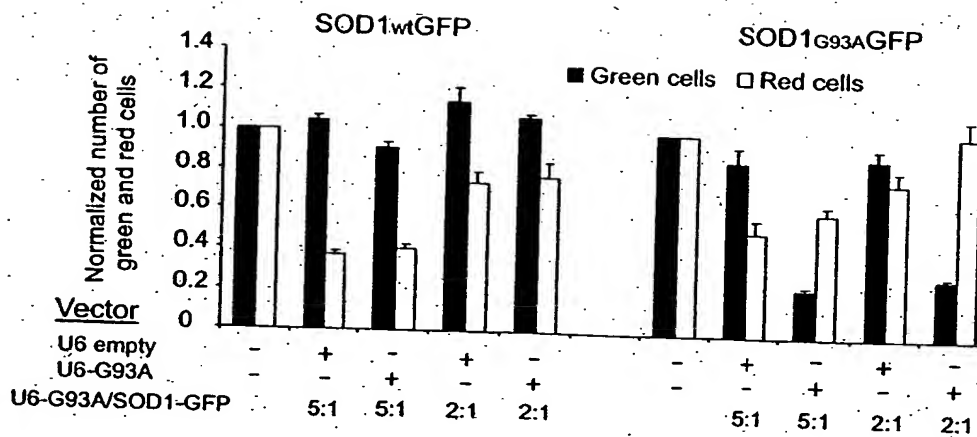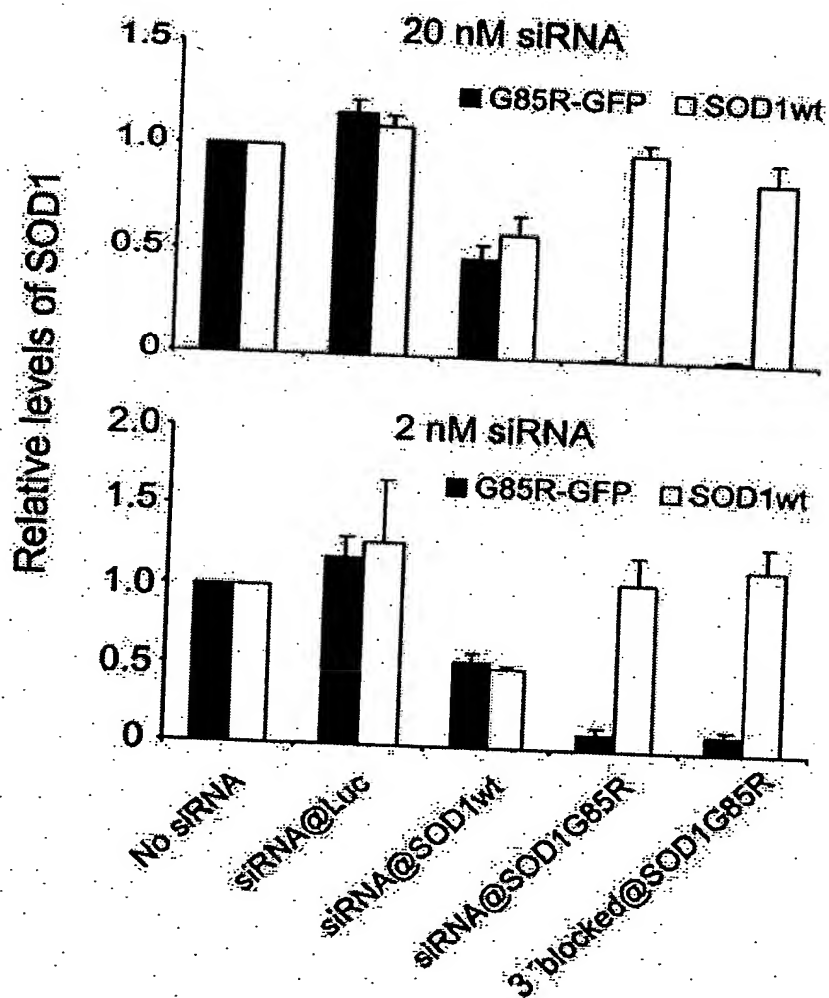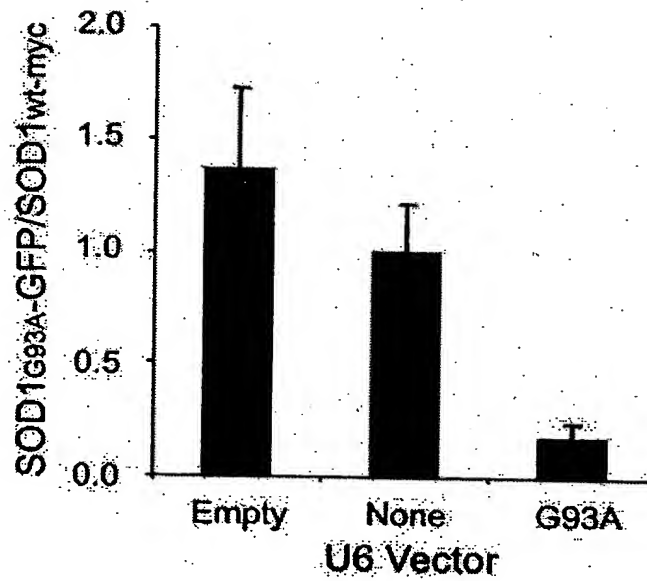
FIGURE 4

A

B

FIGURE 5

A

FIGURE 6

A

FIGURE 7

atkavcvlk gdgpvggiin feqkesngpv kvwgsikglt eglhgfhvhe fgdntagcts
agphfnplsr khggpkdeer hvgdlgnvta dkdgvadvsi edsvislsgd hciigrtlvv
hekaddlgkg gneestktgn agsrlacgvi giaq

App No.: Not Yet Assigned   Docket No.: UMY-038
Inventor: Zuoshang Xu and Phillip D. Zamore
Title: ALLELE-SPECIFIC RNA INTERFERENCE

Sheet 8 of 9

FIGURE 8

```
gcgacgaagg ccgtgtgcgt gctgaagggc gacggcccag tgcagggcat catcaatttc gagcagaagg
aaagtaatgg accagtgaag gtgtggggaa gcattaaagg actgactgaa ggcctgcatg gattccatgt
tcatgagttt ggagataata cagcaggctg taccagtgca ggtcctcact ttaatcctct atccagaaaa
cacggtgggc caaaggatga agagaggcat gttggagact tgggcaatgt gactgctgac aaagatggtg
tggccgatgt gtctattgaa gattctgtga tctcactctc aggagaccat tgcatcattg gccgcacact
ggtggtccat gaaaaagcag atgacttggg caaaggtgga aatgaagaaa gtacaaagac aggaaacgct
ggaagtcgtt tggcttgtgg tgtaattggg atcgcccaa
```

FIGURE 9